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EXAMINER

GREENE, JASON M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1724

6

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,864

Applicant(s)

SUDOH, KATSUNORI

Examiner

Jason M. Greene

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: .

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. Figures 9 and 10 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7 and 17-19 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

5. Claims 7 and 17 require the louver to include a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to the element retainer. Claims 1 and 11, from which claims 7 and 17 depend, require the louver to include a plurality of rectifier portions projecting at a slant to an upper side of the opening portions of the retainer. While the disclosure teaches the louver including a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to a base of the element retainer in Figs. 7 and 8, the specification does not teach the plurality of approximately hexagonal frame portions having a plurality of rectifier portions projecting at a slant to an upper side of the opening portions. For examination purposes, claims 7 and 17 were treated as though the rectifier portions were not present since support for such a limitation is not present in the disclosure.

6. Claims 18 and 19 recite the retainer including a stay positioned at one end for mounting the retainer relative to the housing and a flange for retaining the filter relative to the retainer. However, claim 11, from which claims 18 and 19 depend, recites the retainer being a louver. The phrase "wherein said retainer is a louver" in line 7 of claim 11 is seen as meaning that only the louver forms the retainer. Therefore, since the stay

and flange are not taught as being part of the louver in the disclosure, the disclosure does not teach the limitations of claims 18 and 19.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 7, 11, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 1 recites the limitation "the clean side of an element holder" in lines 5-6. There is insufficient antecedent basis for this limitation in the claim. While the claim language provides antecedent basis for the interior area of the housing having a clean side, the claim language does not provide antecedent basis for the element holder having a clean side.

10. Claim 11 recites the retainer including a plurality of rectifier portions projecting at a slant relative to the retainer. However, since the plurality of rectifier portions are part of the retainer, the claim language reads as though the plurality of rectifier portions project at a slant relative to themselves. Therefore, since it is not clear how the plurality of rectifier portions would project at a slant relative to themselves, the limitation renders the claim language indefinite.

11. Claims 7 and 17 recite the louver including a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to the element retainer. However, since the plurality of hexagonal frame portions form the louver and the louver forms the element retainer, the claim language reads as though the hexagonal frame portions are inclined with respect to themselves. Therefore, since it is not clear how the hexagonal frame portions would be inclined with respect to themselves, the limitation renders the claim language indefinite.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-6, 8-16, 18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Maierhofer.

With regard to claims 1 and 10, Maierhofer discloses an air cleaner comprising a housing (12) forming an interior area, a filter element (32,33) for partitioning the interior area of said housing into a dirty side and a clean side, and a gas passing element

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retainer (16) provided on the clean side of an element holder (10) for supporting said filter element, wherein said element retainer is in the shape of a louver comprising a plurality of opening portions and a plurality of rectifier portions (31) projecting at a slant to an upper side of each of said opening portions in Figs. 1-5 and col. 2, line 31 to col. 3, line 31.

With regard to claim 2, Maierhofer discloses the louver being formed by a plurality of inclined portions (31) that extend from a base portion forming the opening portions in said element retainer for directing air from the gas passing element retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claim 3, Maierhofer discloses the rectifier portions being formed by smoothly continuous curved surfaces (31) extending from a base portion of said element retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claims 4 and 5, Maierhofer discloses the opening portions in the element retainer extending in a first direction and tip end side openings exiting from the inclined portions (31) extending in a second direction displaced approximately 90 degrees relative to the opening portions in said element retainer that extend in said first direction in Fig. 5.

With regard to claims 6 and 16, Maierhofer discloses the plurality of inclined portions (31) that extend from the base portion covering said opening portions in said element retainer in Fig. 5.

Maierhofer does not disclose the inclined portions that extend from the base portion covering said opening portions in said element retainer for reducing the noise from an engine side of said air cleaner.

However, intended use has been continuously held not to be germane to determining the patentability of the apparatus (In re Finsterwalder, 168 USPQ 530). Purpose to which apparatus is to be put and expression relating apparatus to contents thereof during intended operation are not significant in determining patentability of an apparatus claim (Ex parte Thibault, 164 USPQ 666). Inclusion of the material worked upon by the by a structure being claimed does not impart patentability to the claims (In re Otto et al., 136 USPQ 458). A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitation of that claimed (Ex parte Masham, 2 USPQ 2d 1647). Since Maierhofer discloses the structural limitations of the claim, the claim is anticipated.

With regard to claim 8, Maierhofer discloses the element holder (10) including a stay (not shown, portion of 10 interacting with 11) positioned at one end for mounting said element holder relative to said housing (12) in Fig. 1.

With regard to claim 9, Maierhofer discloses the element holder (10) including a flange (28) for retaining the element relative to the element holder in Figs. 4 and 5.

With regard to claim 11, Maierhofer discloses an air cleaner comprising a housing (12) forming an interior area, a retainer (16) for partitioning the interior area of said housing into a dirty side and a clean side, a filter (32,33) mounted relative to said retainer for cleaning air flowing from said dirty side of said retainer to said clean side, wherein said retainer is in the shape of a louver comprising a plurality of opening portions and a plurality of rectifier portions (31) projecting at a slant relative to a base portion of said retainer in Figs. 1-5 and col. 2, line 31 to col. 3, line 31.

With regard to claim 12, Maierhofer discloses the louver being formed by a plurality of inclined portions (31) that extend from a base portion forming the opening portions in said element retainer for directing air from the retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claim 13, Maierhofer discloses the rectifier portions being formed by smoothly continuous curved surfaces (31) extending from a base portion of said retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claims 14 and 15, Maierhofer discloses the opening portions in the retainer extending in a first direction and tip end side openings exiting from the inclined

portions (31) extending in a second direction displaced approximately 90 degrees relative to the opening portions in said retainer that extend in said first direction in Fig. 5.

With regard to claim 18, Maierhofer discloses the retainer (10,16) including a stay (not shown, portion of 10 interacting with 11) positioned at one end for mounting said element holder relative to said housing (12) in Fig. 1.

With regard to claim 19, Maierhofer discloses the retainer (10,16) including a flange (28) for retaining the element relative to the element holder in Figs. 4 and 5.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maierhofer as applied to claims 2 and 12 above, and further in view of Tokar et al.

Maierhofer discloses the plurality of inclined portions (31) that extend from the base portion covering said opening portions in said element retainer in Fig. 5.

Maierhofer does not disclose the inclined portions that extend from the base portion covering said opening portions in said element retainer for reducing the noise from an engine side of said air cleaner.

Tokar et al. discloses using a louver (68) to reduce the noise from an engine (gas turbine) side of an air cleaner in Figs. 2 and 5-8 and col. 3, lines 44-59.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the engine of Tokar et al. into the air cleaner of Maierhofer to reduce the noise from an engine side of the air cleaner, as suggested by Tokar in col. 3, lines 44-59.

16. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maierhofer as applied to claims 1 and 11 above, and further in view of Preble.

Maierhofer does not disclose the louver including a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to said element retainer.

Preble discloses an element retainer (37) in the form of a louver including a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to said element retainer in Figs. 1 and 2 and page 2, col. 1, lines 48-65.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the element retainer of Preble for the element retainer of Maierhofer in that such are alternate retainers for retaining a filter element in a

desired location. Mere substitution of one known element retainer for another in the art being within the scope of one having ordinary skill in the art.

17. Claims 1-6, 8-16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' admitted prior art in view of Maierhofer and Tokar et al.

With regard to claims 1 and 10, Applicants' admitted prior art discloses an air cleaner comprising a housing (not shown) forming an interior area, a filter element (3) for partitioning the interior area of said housing into a dirty side and a clean side, and a gas passing element retainer (6) provided on the clean side of an element holder (1) for supporting said filter element in Figs. 9 and 10 and page 1, line 17 to page 2, line 18 of the specification.

Applicants' admitted prior art does not teach said element retainer being in the shape of a louver comprising a plurality of opening portions and a plurality of rectifier portions (31) projecting at a slant to an upper side of each of said opening portions.

Maierhofer discloses a similar air cleaner wherein the element retainer is in the shape of a louver comprising a plurality of opening portions and a plurality of rectifier portions (31) projecting at a slant to an upper side of each of said opening portions in Figs. 1-5 and col. 2, line 31 to col. 3, line 31.

Tokar et al. discloses using a louver (68) to reduce the noise from an engine (gas turbine) side of an air cleaner in Figs. 2 and 5-8 and col. 3, lines 44-59.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the louvered retainer of Maierhofer into the air cleaner of Applicants' admitted prior art to reduce the noise from the air cleaner, as suggested by Tokar in col. 3, lines 44-59.

With regard to claim 2, Maierhofer discloses the louver being formed by a plurality of inclined portions (31) that extend from a base portion forming the opening portions in said element retainer for directing air from the gas passing element retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claim 3, Maierhofer discloses the rectifier portions being formed by smoothly continuous curved surfaces (31) extending from a base portion of said element retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claims 4 and 5, Maierhofer discloses the opening portions in the element retainer extending in a first direction and tip end side openings exiting from the inclined portions (31) extending in a second direction displaced approximately 90 degrees relative to the opening portions in said element retainer that extend in said first direction in Fig. 5.

With regard to claims 6 and 16, Maierhofer discloses the plurality of inclined portions (31) that extend from the base portion covering said opening portions in said element retainer in Fig. 5.

Maierhofer does not disclose the inclined portions that extend from the base portion covering said opening portions in said element retainer for reducing the noise from an engine side of said air cleaner.

However, intended use has been continuously held not to be germane to determining the patentability of the apparatus (In re Finsterwalder, 168 USPQ 530). Purpose to which apparatus is to be put and expression relating apparatus to contents thereof during intended operation are not significant in determining patentability of an apparatus claim (Ex parte Thibault, 164 USPQ 666). Inclusion of the material worked upon by the by a structure being claimed does not impart patentability to the claims (In re Otto et al., 136 USPQ 458). A recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the structural limitation of that claimed (Ex parte Masham, 2 USPQ 2d 1647).

With regard to claim 8, Applicants' admitted prior art discloses the element holder (1) including a stay (not numbered, corresponding to part 27 in Fig. 3) positioned at one end for mounting said element holder relative to said housing in Figs. 9 and 10.

With regard to claim 9, Applicants' admitted prior art discloses the element holder (1) including a flange (not numbered, corresponding to part 19 in Fig. 4) for retaining the element relative to the element holder in Figs. 9 and 10.

With regard to claim 11, Applicants' admitted prior art discloses an air cleaner comprising a housing (not shown) forming an interior area, a retainer (6) for partitioning the interior area of said housing into a dirty side and a clean side, a filter (3) mounted relative to said retainer for cleaning air flowing from said dirty said of said retainer to said clean side,

Applicants' admitted prior art does not teach said retainer being in the shape of a louver comprising a plurality of opening portions and a plurality of rectifier portions (31) projecting at a relative to a base portion of said retainer.

Maierhofer discloses a similar air cleaner wherein the retainer is in the shape of a louver comprising a plurality of opening portions and a plurality of rectifier portions (31) projecting at a slant relative to a base portion of said retainer in Figs. 1-5 and col. 2, line 31 to col. 3, line 31.

Tokar et al. discloses using a louver (68) to reduce the noise from an engine (gas turbine) side of an air cleaner in Figs. 2 and 5-8 and col. 3, lines 44-59.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the louvered retainer of Maierhofer into the air cleaner of Applicants' admitted prior art to reduce the noise from the air cleaner, as suggested by Tokar in col. 3, lines 44-59.

With regard to claim 12, Maierhofer discloses the louver being formed by a plurality of inclined portions (31) that extend from a base portion forming the opening portions in said element retainer for directing air from the retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claim 13, Maierhofer discloses the rectifier portions being formed by smoothly continuous curved surfaces (31) extending from a base portion of said retainer in Figs. 1-5 and col. 2, lines 52-60.

With regard to claims 14 and 15, Maierhofer discloses the opening portions in the retainer extending in a first direction and tip end side openings exiting from the inclined portions (31) extending in a second direction displaced approximately 90 degrees relative to the opening portions in said retainer that extend in said first direction in Fig. 5.

With regard to claim 18, Applicants' admitted prior art discloses the retainer (1) including a stay (not numbered, corresponding to part 27 in Fig. 3) positioned at one end for mounting said retainer relative to said housing in Figs. 9 and 10.

With regard to claim 19, Applicants' admitted prior art discloses the retainer (1) including a flange (not numbered, corresponding to part 19 in Fig. 4) for retaining the element relative to the retainer in Figs. 9 and 10.

18. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' admitted art, Maierhofer, and Tokar et al as applied to claims 1 and 11 above, and further in view of Preble.

Applicants' admitted art, Maierhofer, and Tokar et al. do not disclose the louver including a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to said element retainer.

Preble discloses an element retainer (37) in the form of a louver including a plurality of approximately hexagonal frame portions that are inclined at a predetermined angle with respect to said element retainer in Figs. 1 and 2 and page 2, col. 1, lines 48-65.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the element retainer of Preble for the element retainer of Applicants' admitted art, Maierhofer, and Tokar et al. in that such are alternate retainers for retaining a filter element in a desired location. Mere substitution of one known element retainer for another in the art being within the scope of one having ordinary skill in the art.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Schauwecker et al., Brown et al., Keist, Jordan et al.,

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Whitson et al., McConnell, Wagner, Jenkins, and Pelabon references disclose similar air cleaners.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (703) 308-6240. The examiner can normally be reached on Tuesday - Friday (7:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Simmons can be reached on (703) 308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jason M. Greene
Examiner
Art Unit 1724



David A. Simmons
Supervisory Patent Examiner
Technology Center 1700

jmg
November 14, 2002